

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) An infusion device for medical use, comprising:

[-] at least one container (4) designed to hold a specified quantity of a liquid to be infused into a patient;

[-] a weighing device (7) associated for operation with the said container to measure the weight of the container and emit a corresponding control signal;

[-] a transport line (2) connected to the said container to convey the liquid, in operating conditions, towards an infusion point (5);

[-] means (9) for moving a flow of the liquid along the said line;

a control unit (8) associated with the said weighing device and with the said movement means, the control unit receiving the said control signal and being capable of detecting at least one end of infusion condition;

~~the said infusion device being characterised in that it comprises a continuous fluid separator (10) capable of separating the fluid into a gaseous portion and a liquid portion, the said separator (10) operating in the said transport line-(2).~~

2. (Currently Amended) The device of ~~Claim~~ claim 1, characterized in that the wherein said separator comprises a containing body (11) having:

[-] at least one inlet (12) for receiving a fluid from the said container;

[-] at least a first outlet {13} for receiving a liquid portion of the said fluid; and
[-] selector means {15} interposed between the said inlet and the said first outlet
and capable of continuously separating said fluid into a gaseous portion and a liquid
portion.

3. (Currently Amended) The device of ~~Claim~~ claim 2, characterized in that
~~the wherein~~ said containing body {11} of the separator comprises at least a second
outlet {14} for receiving the said gaseous portion of the said fluid.

4. (Currently Amended) The device of ~~Claim~~ claim 2 or 3, characterized in
~~that the wherein~~ said selector means comprise at least one hydrophilic membrane {16}
having one side facing the said first outlet and one side facing the said inlet, for
receiving the said fluid and transferring only liquid towards the said first outlet.

5. (Currently Amended) The device of ~~Claim~~ claim 3 or 4, characterized in
~~that the wherein~~ said selector means comprise at least one hydrophobic membrane {17}
having one side facing the said second outlet and one side facing the said inlet, for
receiving the said fluid and transferring only gas towards the said second outlet.

6. (Currently Amended) The device of ~~any one of Claims~~ claim 1 to 5,
characterized in that ~~the wherein~~ said separator {10} is interpositioned between the said
movement means {9} and the said infusion point {5}.

7. (Currently Amended) The device of ~~any one of Claims~~ claim 1 to 6, characterized in that ~~the~~ wherein said separator (10) is positioned immediately downstream of the said movement means (9).

8. (Currently Amended) The device of ~~any one of Claims~~ claim 1 to 7, characterized in that it comprises comprising a rigid support (1) holding opposite ends of a first length of tubing (18) of the said line (2) designed to interact with the said movement means (9), the said first length of tubing having a curved shape and a predetermined axial extension.

9. (Currently Amended) The device of ~~Claim~~ claim 8, characterized in that ~~the~~ wherein said line (2) comprises a second length of tubing (19) extending between the said container (4) and the said rigid support (1) and put into fluid communication with the said first length.

10. (Currently Amended) The device of ~~Claim~~ claim 8 or 9, characterized in that ~~the~~ wherein said rigid support (1) comprises a first lateral portion (20) forming the said containing body (11).

11. (Currently Amended) The device of ~~Claim~~ claim 10, characterized in that ~~the~~ wherein said rigid support (1) comprises a second lateral portion (22) with a tubular profile to which are fixed corresponding ends of the said first and the said second length of tubing of the said line (18, 19), the said second lateral portion being distanced from the said first portion (20).

12. (Currently Amended) The device of ~~any one of~~ Claims claim 3 to 11, characterized in that ~~the~~ wherein said containing body (11) comprises a base (25) and a cover portion (26), interacting with ~~one~~ each other to form a passage (27) for fluid between ~~the~~ said inlet (12) and ~~the~~ said first and second outlets (13, 14).

13. (Currently Amended) The device of ~~Claim~~ claim 12 and of any one of ~~Claims 5 to 11~~, characterized in that ~~the~~ wherein said base (25) forms a through channel (28) for putting ~~the~~ said passage (27) into fluid communication with the exterior, ~~the said~~ a hydrophobic membrane (17) operating in ~~the~~ said channel.

14. (Currently Amended) The device of ~~Claim~~ claim 12 or 13, characterized in that ~~the~~ wherein said base (25) comprises an incorporated first tubular connecting element (29).

15. (Currently Amended) The device of ~~Claim~~ claim 14, characterized in that ~~the~~ wherein said cover portion (26) comprises an incorporated second tubular connecting element (30) having an axis of extension which is inclined with respect to an axis of extension of ~~the~~ said first tubular connecting element.

16. (Currently Amended) The device of ~~Claim~~ claim 12 and to any one of ~~Claims 4 to 11~~, characterized in that ~~the~~ wherein said hydrophilic membrane (16) is interpositioned between ~~the~~ said base (25) and ~~the~~ said cover portion (26), and extends throughout ~~the~~ said containing body (11).

17. (Currently Amended) The device of ~~Claims~~ claim 12 and of any one of ~~Claims 4 to 11~~, characterized in that wherein each of ~~the~~ said base (25) and ~~the~~ said

cover portion {26} comprises a corresponding base wall {25a; 26a} and a corresponding perimeter edge {25b; 26b} emerging from the said base wall, the said a hydrophilic membrane {16} extending parallel to the said base walls wall {25a; 26a} and distanced there-from.

18. (Currently Amended) The device of Claim claim 17, characterized in that the wherein said containing body has a plurality of projections {31} emerging from the said base wall of the said base.

19. (Currently Amended) The device of Claim claim 17 or 18, characterized in that the wherein said containing body has a plurality of projections {32} emerging from the said base wall of the said cover portion.

20. (Currently Amended) The device of Claim claim 18 or 19, characterized in that the wherein said base projections {31} comprise teeth distributed uniformly over the surface of the said base wall of the said base.

21. (Currently Amended) The device of Claim claim 19 or 20, characterized in that the wherein said cover portion projections {32} comprise deflectors spaced angularly to guide a flow of liquid towards the said first outlet.

22. (Currently Amended) The device of Claim claim 11, characterized in that the wherein said first and second lateral portion portions {20, 22} are rigidly connected by a rigid cross-piece {23}.

23. (Currently Amended) The device of Claims claim 22 and 12, characterised in that the wherein said base (25) of the said containing body, the said rigid cross-piece (23) and the said second lateral portion (22) are made in a single piece.

24. (Currently Amended) The device of Claim claim 22 or 13, characterised in that the wherein said rigid cross-piece is essentially flat and parallel to a lie plane of the said first length of tubing.

25. (Currently Amended) The device of any one of Claims claim 1 to 24, characterised in that the wherein said control unit (8) is capable of performing configured to perform an appropriate end of infusion procedure when an end of infusion condition is detected.

26. (Currently Amended) The device of Claim claim 25, characterised in that the wherein said end of infusion procedure comprises a stage of commanding the said movement means (9) to stop transport of said fluid along the said line.

27. (Currently Amended) The device of Claim claim 25, characterised in that the wherein said end of infusion procedure comprises a stage of signalling that the end of infusion condition has been reached.

28. (Currently Amended) The device of any one of Claims claim 1 to 24, characterised in that it comprises comprising a plurality of the said containers (4), the said transport line (2) exhibiting a plurality of branches for fluid connection of each

container to the said infusion point, and a corresponding flow shut-off element (6) acting on each of the said branches.

29. (Currently Amended) The device of Claim 28, characterised in that the wherein said control unit (8) is capable of performing an appropriate end of infusion procedure when the end of infusion condition is detected, the said end of infusion procedure comprising the a stage of commanding the an opening of a shut-off element (6) associated with a container which is not empty.

30. (Currently Amended) The device of claim 1any one of the preceding claims, characterised in that it comprises comprising at least one check valve (36), predisposed on the said transport line (2) to prevent a flow which is inverse to an infusion direction.

31. (Currently Amended) The device of claim 30, characterised in that the wherein said check valve (36) is arranged between the said continuous fluid separator (10) and the said infusion point (5).

32. (Currently Amended) The device of claim 31, characterised in that the wherein said check valve (36) is arranged immediately downstream of the said continuous fluid separator (10).

33. (Currently Amended) The device of claim 30 and of claim 8, characterised in that the wherein said check valve (36) is an integral part of the said a rigid support (1) holding opposite ends of a first length of tubing of said line designed to interact with said moving means.

34. (Currently Amended) The device of claim 30 and of claim 2, characterised in that the said check valve (36) is arranged internally of the said a containing body (11) in a zone comprised between the said selector means (15) and the said first outlet (13) interposed between an inlet and an outlet of said containing body and said outlet, said selector means being capable of continuously separating said fluid into a gaseous portion and a liquid portion.

35. (Currently Amended) The device of claim 30, characterised in that the said check valve (36) comprises a mobile obturator organ (37), which operates on a passage mouth (35) of the said liquid portion.

36. (Currently Amended) The device of claim 35 and of claim 12, characterised in that the said passage mouth (35) is associated to with the said a cover portion (26) of the said containing body (11).

37. (Currently Amended) The device of claim 36, characterised in that the said cover portion (26) comprises a base wall (26a) and wherein the said selector means (15) comprise comprises at least one hydrophilic membrane (16) facing and distanced from the said base wall (26a), the said passage mouth (35) being associated to the said base wall (26a).

38. (Currently Amended) The device of claim 5, characterised in that the said containing body (11) internally defines a fluid passage (27) between the said separator inlet (12) and the said first outlet (13), the said hydrophobic membrane (17) being situated in an upper zone of a fluid passage portion (27a) located upstream

of the said hydrophilic membrane (16), the said hydrophobic membrane (17) facing upwards in a use configuration of the said support element (1).

39. (Currently Amended) The device of claim 38, ~~characterised in that the~~ wherein said upstream passage portion (27a) for fluid passage has at least one passage section which progressively increases in a direction towards the said hydrophobic membrane (17).

40. (Currently Amended) The device of claim 39, ~~characterised in that the~~ wherein said hydrophobic membrane (17) is located superiorly with respect to an upper point of the operative surface of the said hydrophilic membrane (16).

41. (Currently Amended) The device of claim 11, ~~characterised in that the~~ wherein said containing body (11) has a development which is prevalently in a transversal direction proceeding from the said first lateral portion (20) to the said second lateral portion (22), the said first outlet (13) being located in a lateral end zone of the said transversal development, in proximity of the said second lateral portion (22).

42. (Currently Amended) The device of claim 41, ~~characterised in that the~~ wherein said second outlet (14) is arranged in an intermediate zone of the said transversal development.

43. (Currently Amended) An infusion device for medical use, comprising:
[[-]] at least one container (4) designed to hold a specified quantity of a fluid to be infused into a patient;

- [[-]] a transport line (2) connected to the said container to convey the said fluid, in operating conditions, in an infusion direction leading from the said container (4) towards an infusion point (5);
- [[-]] at least one continuous fluid separator (10), operating on the said transport line (2) and separating the said fluid into a gaseous portion and a liquid portion;
- [[-]] at least one check valve (36), operating on the said transport line (2) for preventing a flow in an inverse direction to the said infusion direction;
- [[-]] a rigid containing body (11) having at least one inlet (12) and at least a first outlet (13) for a fluid, inserted in the said transport line (2), which said containing body (11) contains the said separator (10) and the said check valve (36), both of which separator (10) and check valve (36) are arranged between the said at least one inlet (12) and the said at least one outlet (13).

44. (Currently Amended) The device of claim 43, characterised in that the ~~wherein said continuous fluid separator (10) is the separator of any one of claims from 2 to 5 and from 12 to 21 further comprises a containing body having:~~

at least one inlet for receiving fluid from said container;

at least a first outlet for receiving a liquid portion of said fluid; and

selector means interposed between said inlet and said first outlet and capable of continuously separating said fluid into a gaseous portion and a liquid portion.

45. (Currently Amended) The device of claim 44, ~~characterised in that the~~ wherein said check valve (36) is arranged internally of the said containing body (11) in a zone comprised between the said selector means (15) and the said first outlet (13).

46. (Currently Amended) The device of claim 43, ~~characterised in that the~~ wherein said check valve (36) comprises a mobile obturating organ (37) operating on a passage mouth (35) of the said liquid portion.

47. (Currently Amended) The device of claim 44, ~~characterized in that the~~ wherein said passage mouth (35) is associated to with the said cover portion (26) of the said containing body (11).

48. (Currently Amended) The device of claim 47, ~~characterised in that the~~ wherein said cover portion (26) comprises a base wall (26a), and wherein the said selector means (15) comprise at least one hydrophilic membrane (16) which faces the said base wall (26a) and is distanced therefrom therefrom, the said passage mouth (35) being associated to the said base wall (26a).

49. (Currently Amended) Apparatus An apparatus for extracorporeal blood treatment, comprising a device according to ~~any one of the preceding claims~~ claim 1.

50. (Currently Amended) Apparatus An apparatus for extracorporeal blood treatment according to ~~Claims 49 and 15~~, ~~characterised in that it comprises~~ comprising a device according to claim 1, an extracorporeal circuit (33) and a blood treatment unit (34) positioned in the said circuit (33), the said second connecting element (30) being

directly and removably connected to a connector of the said extracorporeal blood circuit
(33) upstream or downstream of a said blood treatment unit (34).